IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: T. Douglas Mast et al.

Serial No. : Art Unit: Not Assigned

Filed: December 12, 2003 Examiner: Not Assigned

For : METHOD FOR MAPPING TEMPERATURE RISE USING PULSE-

ECHO ULTRASOUND

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner For Patents, PO Box 1450, Alexandria, VA 22313-1450 on

December 12 2003
(Date of Deposit)

Linda F. Hansen
ame of applicant, assignee, or Registered Representative)

December 12 2003

(Date of Signature)

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

Applicant(s) reserve(s) the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this

information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist.

冈 In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified national application (other than a continued prosecution application under §1.53(d)), within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, or before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of a request for continued examination under §1.114, no additional fee is required. In accordance with §1.129(a), this Information Disclosure Statement is being filed in connection with \(\square\$ the first or second After Final Submission, therefore: Statement in Accordance with §1.97(e) \Box (attached); or Please charge Deposit Account No. 10-/ the fee of \$180.00 as set forth in §1.17(p). In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311, or an action that otherwise closes prosecution and that it is accompanied by one of:

Statement in Accordance with §1.97(e)
(attached); or
Please charge Deposit Account No. 10-
0750/ / the fee of $$180.00$ as set forth
in §1.17(p).
In accordance with §1.97(d), this Information
Disclosure Statement is being filed after the mailing date of
either a Final Action under §1.113 or a Notice of Allowance
under §1.311 but before the payment of the Issue Fee.
Applicant(s) hereby petition(s) for consideration of this
Information Disclosure Statement. Included are: Statement in
Accordance with §1.97(e) as set forth below and the fee of
\$180.00 as set forth in §1.17(p).
☐ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.
accaenca form fro 1449 are encrosed nerewren.
Copies of references listed on the attached Form PTO 1449 are enclosed herewith EXCEPT THAT:
☐ In view of the voluminous nature of references
[list as appropriate], and the likelihood that
these references are available to the Examiner,
copies are not enclosed herewith.
copies are not encrosed herewith.
If any of the foregoing publications are not
available to the Examiner, Applicant will
endeavor to supply copies at the Examiner's
request.
$oxed{oxed}$ There are no listed references which are not in the
English language.

The relevance of those listed references which are not in the English language is as follows:			
Attached are copies of search report(s) from corresponding patent application(s), which are listed on the attached Submission Under MPEP 609 D.			
Attached are the following non-published pending patent applications which may be deemed relevant, which are listed on the attached Submission Under MPEP 609 D.			
Please charge any deficiency or credit any overpayment to Deposit Account No. 10-0750/END-5043/VEK.			
Respectfully submitted, Verne E. Kreger, Jr. Reg. No. 35,231 Attorney for Applicants			
Johnson & Johnson One Johnson & Johnson Plaza New Brunswick, NJ 08933-7003 (513) 337-3295 DATED: December //, 2003			

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)
Sheet 1 of 2

a collection of information unless it displays a valid OMB control number.		
Application Number		
Filing Date	December 12, 2003	
First Named Inventor	T. Douglas Mast et al.	
Group Art Unit	Not assigned	
Examiner Name	Not assigned	
Attorney Docket Number	END-5043	

	T	U.S. Patent Do	ocument	U.S. PATENT DOCUMENTS		
Examiner Initials	Cit e No	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document mm-dd-yyyy	Pages, Columns, Lines, where relevant passages or relevant figures appear
						ALL
						ALL
		·				ALL
						ALL
						ALL
						ALL
						ALL
						ALL
						ALL
						ALL
						ALL
						ALL

FOREIGN PATENT DOCUMENTS Foreign Patent Document Date of Publication Pages, Columns, Lines, of Cited Document where relevant Name of Patentee or passages or relevant Examiner Cite Т6 mm-dd-yyyy Applicant of Cited Document figures appear Initials KindCode5 Office³ Number⁴ No.1 ALL ALL ALL ALL **ALL** ALL

Examiner	Date	
Signature	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-00) Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
to a collection of information unless it displays a valid OMB coatrol number.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) Sheet 2 of 2

Application Number	
Filing Date	December 12, 2003
First Named Inventor	T. Douglas Mast et al.
Group Art Unit	Not assigned
Examiner Name	Not assigned
Attorney Docket Number	END-5043

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner's Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
		MAASS-MORENO, ROBERTO et al., "Noninvasive temperature estimation in tissue via ultrasound echo-shifts. Part I. Analytical study". J. Acoust. Soc. Am., Vol. 100, No. 4, Pt. 1, October 1996, pages 2514-2521.	
		MAASS-MORENO, ROBERTO et al., "Noninvasive temperature estimation in tissue via ultrasound echo-shifts. Part II. In vitro study". J. Acoust. Soc. Am., Vol. 100, No. 4, Pt. 1, October 1996, pages 2522-2530.	
		SEIP, RALF et al., "Noninvasive Real-Time Multipoint Temperature Control for Ultrasound Phased Array Treatments". IEEE Transactions on ultrasonics, terroelectrics, and frequency control. Vol. 43, No. 6, November 1996. Pages 1063-1073.	
		SIMON, CLAUDIO et al., "Two-Dimensional Temperature Estimation Using Diagnostic Ultrasound". IEE Transactions on ultrasonics, ferroelectrics, and frequency control. Vol. 45, No. 4, July 1998. Pages 1088-1099.	
	ii m		

Examiner	Date
Signature	Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231.
DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA

22313-1450.

¹ Unique citation designation number. 2 Applicant is to place a check mark here if English language Translation is attached.